

REMARKS

I. Introduction

By the present Amendment, claims 1, 7, and 18 have been amended. No claims have been added or cancelled. Accordingly, claims 1-18 remain pending in the application. Claims 1, 7, and 18 are independent.

II. Office Action of Summary

In the Office Action of February 13, 2008, the Title of the Invention was objected to. Claims 1 and 7 were objected to because of various informalities. Claim 18 was rejected under 35 USC §112, first paragraph, as failing to comply with the enablement requirement. Claims 1, 7, and 18 were rejected under 35 USC §112, second paragraph, as being indefinite.

These objections and rejections are respectfully traversed.

III. Objection to the Title

The Title of the Invention was objected to as being non-descriptive. The Office Action further required a new title that is clearly indicative of the invention to which the claims are directed.

By the present Amendment, Applicants have amended the title to recite "LIQUID CRYSTAL DISPLAY DEVICE WITH CONTROLLED POSITIVE AND NEGATIVE GRAY SCALE VOLTAGES."

Applicants respectfully submit that the current title is clearly indicative of the invention to which the claims are directed. Withdrawal of this objection is therefore respectfully requested.

Claims 1 and 7 were objected to because of various informalities. Regarding these objections, the Office Action cites various instances of phrases containing grammatical errors. By the present Amendment, Applicants have reviewed claims 1 and 7 and made appropriate corrections to address these errors, based in part on the suggestions made in the Office Action.

Withdrawal of this objection is therefore respectfully requested.

IV. Rejections under 35 USC §112

Claim 18 was rejected under 35 USC §112, first paragraph, as failing to comply with the enablement requirement. Regarding this rejection, the Office Action indicates that the claim contains subject matter which was not described in the Specification in such a way as to enable one skilled in the art to make and/or use the invention. In particular, the Office Action indicates that claim 18 is a method claim, but fails to recite any steps to be performed in accordance with this type of claim. The Office Action further indicates that the claim does not describe how the average value positive/negative side gray scale are increased and decreased.

By the present Amendment, Applicants have revised the language of independent claim 18 such that it is in proper method format. As amended, independent claim 18 defines a method of driving display device which includes a pixel electrode to which a video signal is supplied and a counter electrode to which a reference signal, which becomes a reference with respect to the video signal, is supplied to each pixel. A positive-side gray scale voltage and a negative-side gray scale voltage are formed with respect to the reference signal that is applied to the counter electrode. The method comprises the steps of:

(a) increasing an average value of the positive-side gray scale voltage and the negative-side gray scale voltage when a signal amplitude of the video signal falls in a range from a minimum value to a first value,

(b) decreasing the average value of the positive-side gray scale voltage and the negative-side gray scale voltage when the signal amplitude of the video signal falls in a range from the first value to a second value, and

(c) increasing the average value of the positive-side gray scale voltage and the negative-side gray scale voltage when the signal amplitude of the video signal falls in a range from the second value to a maximum value.

According to independent claim 18, an average value of the positive-side gray scale voltage and the negative-side gray scale voltage is increased when a signal amplitude of the video signal falls in a range from a minimum value to a first value. The average value of the positive-side gray scale voltage and the negative-side gray scale voltage is decreased when the signal amplitude of the video signal falls in a range from the first value to a second value. Finally, the average value of the positive-side gray scale voltage and the negative-side gray scale voltage is increased when the signal amplitude of the video signal falls in a range from the second value to a maximum value. Thus, the steps performed to drive the display device are now clearly recited.

Withdrawal of this rejection is therefore respectfully requested.

Claims 1, 7, and 18 were rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. Regarding this rejection, the Office Action indicates that claims 1 and 7 are apparatus claims, however, they do not recite any structural limitations. Only functional limitations appear to be recited. Furthermore, the Office Action indicates that the claims do not include an explanation as to how

the average value positive/negative-side gray scale voltage is increased or decreased. Regarding claim 18, the Office Action further indicates that the claim is a method claim, but does not recite any steps for achieving the claimed method.

By the present Amendment, Applicants have amended independent claims 1 and 7 to recite various structures of the display device that are necessary to practice the invention. Furthermore, independent claims 1 and 7 have been amended to specify the structures that perform the various functions mentioned in the Office Action. Regarding independent claim 18, Applicants have made various amendments to place this claim in proper method form by clearly reciting the steps necessary to practice the invention.

Applicants respectfully submit that, as amended, the presently pending claims satisfy the requirements of 35 USC §112, second paragraph. Withdrawal of this rejection is therefore respectfully requested.

As no art rejections are currently pending in the application, these claims are believed to be allowable over the art of record.

V. Conclusion

For the reasons stated above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a Notice of Allowance is believed in order, and courteously solicited.

If the Examiner believes that there are any matters which can be resolved by way of either a personal or telephone interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

AUTHORIZATION

Applicants request any shortage or excess in fees in connection with the filing of this paper, including extension of time fees, and for which no other form of payment is offered, be charged or credited to Deposit Account No. 01-2135 (Case: 501.43619X00).

Respectfully submitted,
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